Serial No.: 09/752,623 Attorney Docket No.: 00P09130 US

REMARKS

Claims 1 and 3-17 are pending.

Claims 1 and 3-9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Evans, U.S. Patent No. 6,278,722 ("Evans") in view of Takahashi, U.S. Patent No. 6,263,210 ("Takahashi"). Applicant respectfully submits that the claimed invention is not taught, suggested, or implied by Evans or Takahashi, either singly or in combination.

As discussed in the Specification, in many cordless and/or wireless systems, the available bandwidth is subdivided into smaller channels. However, *the band-pass filter typically has a bandwidth covering the entire available bandwidth.* When the signal bandwidth is less than the available system bandwidth, the band-pass filter 102 fails to filter out the "out of channel" interferers. These are then mixed and can negatively impact system robustness, which results in a higher bit error rate and voice quality degradation.

Accordingly, an embodiment of the present invention provides a programmable band-pass filter in a radio-frequency receiver. The band-pass filter has a bandwidth sized to substantially cover only a channel bandwidth. Once the appropriate channel in use is determined, the frequency band of the band-pass filter is set to correspond to it. In certain embodiments of the present invention, the frequency band is divided into subsets, each subset having a plurality of channels. The bandwidth of the filter is selected to correspond to one of the channels.

Thus, claim 1 recites "a programmable filter adapted to bandpass filter said signals at individual ones of said channels, said receiver being a frequency hopping receiver and said programmable filter receiving a frequency select signal, said programmable filter adapted to select a channel for filtering responsive to said frequency select signal, said bandpass filter having a bandwidth sized to correspond to a channel bandwidth; wherein said frequency bands are divided into a plurality of

subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected;" claim 3 recites "said receiver being a frequency hopping receiver and said bandpass filter receiving a frequency select signal, said bandpass filter adapted to select a channel for filtering responsive to said frequency select signal, said bandpass filter having a bandwidth sized to correspond to a channel bandwidth; wherein said frequency channels are selected from a plurality of frequency bands divided into a plurality of subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected;" claim 4 has been amended to recite "wherein each of said base station and handsets has a radio-frequency receiver adapted to receive signals at a plurality of channels within frequency bands and a programmable filter adapted to bandpass filter said signals at individual ones of said channels, said filter having a bandwidth sized to correspond to a channel bandwidth, wherein said frequency bands are divided into a plurality of subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected;" claim 6 recites "band-pass filtering said channel at an input to a radio-frequency receiver, said bandpass filtering comprising filtering with a bandwidth sized to correspond to a channel bandwidth; wherein said frequency channels are selected from a plurality of frequency bands divided into a plurality of subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected;" and claim 8 recites "providing a bandpass filter having a variable band corresponding to said one of said plurality of frequency channels, said bandpass filter having a bandwidth sized to correspond to a channel bandwidth;wherein said frequency channels are selected from a plurality of frequency bands divided into a plurality of subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected."

In contrast, contrary to the suggestion in the Official Action, neither Evans nor

Takahashi provide, inter alia, a bandpass filter sized to a channel bandwidth.

With reference to Evans, the Official Action states

> "[i]t should be noted that the bandpass filter of Evans obviously including a bandwidth sized to correspond to a channel bandwidth since Evans discloses that the system uses a 902-928 MHz ISM band in a 3 KHz bandwidth at less than 8 dBm gain. . .and the bandpass filter allows the signals of the designated frequency band to pass, it is obvious the Evan's filter having a bandwidth size to a channel bandwidth and a programmable bandpass filter for passing selected frequencies."

The Official Action goes on to state that "[h]owever, Evans does not specifically disclose the bandpass filter is controlled by a program and a bandwidth size to correspond to a channel bandwidth."

Applicant agrees that Evans does not provide a bandpass filter having a bandwidth sized to a channel bandwidth, but respectfully disagree that Evans "obviously" provides such a feature. Indeed, nothing in Evans is inconsistent with the problems of the prior art described in the Specification – namely, that prior art *band-pass filters typically have a bandwidth covering the entire available bandwidth.* Thus, in Evans, presumably, this would be a filter over the 902-928 Mhz band, rather than individual channels, as generally recited in the claims at issue.

With reference to Takahashi, the Official Action states "Takahashi discloses. . .the receiver also having a bandwidth sized to correspond to a channel bandwidth (column 15 lines 6-50) which means the receiver inherently includes a programmable bandpass filter for select a channel for filtering. . .and the bandpass filter having a bandwidth sized to correspond to a channel bandwidth." While Takahashi does provide 26 frequency channels, nothing in Takahashi is inconsistent with the problems in the prior art described above and in the Specification.

Applicant notes that, while FIG. 7 of Takahashi describes bandpass filters 603, 610, and 612, these do not appear to be specific to individual channels. Indeed, the Official Action appears to recognize Takahashi's failure to teach a bandpass filter

having a bandwidth sized to a channel bandwidth, because the Action relies on the concept of "inherency." The concept of "inherency," however, does not grant a license to read into the prior art reference teachings that are not there. *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 43 U.S.P.Q.2d 1481 (Fed. Cir. 1997). Such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection. *In re Rijckaert*, 9 F.3d 1531, 28 U.S.P.Q.2d 1955 (Fed. Cir. 1993). As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 10-17 were rejected under 35 U.S.C. 103 as being unpatentable over Evans in view of Anzai et al., U.S. Patent No. 5,982,762 ("Anzai"). Applicant respectfully submits that the claimed invention is not taught, suggested, or implied by Evans or Anzai, either singly or in combination. Claim 10 recites "said band pass filter filtering channels at frequencies of said frequency hopping scheme responsive to said information, wherein a bandwidth of said band pass filter is sized to correspond to a channel bandwidth; wherein said frequency channels are selected from a plurality of frequency bands divided into a plurality of subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected;" claim 14 recites "wherein said band pass filter is adapted to filter channels at frequencies of said frequency hopping scheme responsive to said information, wherein a bandwidth of said band pass filter is sized to correspond to a channel bandwidth; wherein said frequency channels are selected from a plurality of frequency bands divided into a plurality of subsets, each subset having a plurality of channels, and said frequency select signal indicates which channel in a particular subset is selected."

As discussed above, Evans does not appear to relate to a programmable bandpass filter having a bandwidth sized to the channel bandwidth selected to correspond to one of the channels chosen from a subset of frequencies in a frequency band of a frequency-hopping system, as generally recited in the claims at issue.

With reference to Anzai, the Official Action again relies on concepts of inherency, pointing to FIG. 2. However, as in the case of Takahashi, Anzai appears representative of problems solved by the present invention. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

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Respectfully requested,

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